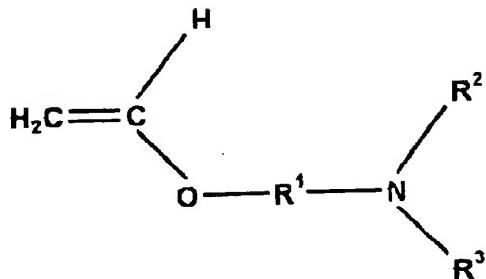


What is claimed is:

1. An antimicrobial copolymer, obtainable by copolymerizing a vinyl ether of the general formula
- 5



10 where R^1 is a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms, and

R^2 is H, and

15 R^3 is H or a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms,

with at least one aliphatically unsaturated monomer.

- 20 2. An antimicrobial polymer as claimed in claim 1,
wherein
the vinyl ether used comprises 3-aminopropyl vinyl ether.
- 25 3. An antimicrobial polymer as claimed in claim 1 or
2,
wherein
the aliphatically unsaturated monomers are
methacrylic acid compounds.
- 30 4. An antimicrobial polymer as claimed in claim 1 or
2,

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wherein

the aliphatically unsaturated monomers are acrylic acid compounds.

- 5 5. An antimicrobial polymer as claimed in claim 1 or
2,

wherein

the aliphatically unsaturated monomers used are methyl methacrylate, ethyl methacrylate, butyl methacrylate, tert-butyl methacrylate, methyl acrylate, ethyl acrylate, butyl acrylate, tert-butyl acrylate, tert-butylaminoethyl esters, 2-diethylaminoethyl methacrylate, 2-diethylaminoethyl vinyl ether, N-3-dimethylaminopropylmethacrylamide, 3-methacryloylaminopropyltrimethylammonium chloride, 2-methacryloyloxyethyltrimethylammonium chloride or 2-methacryloyloxyethyltrimethylammonium methosulfate.

20

6. An antimicrobial polymer as claimed in any one of claims 1 to 5,

wherein

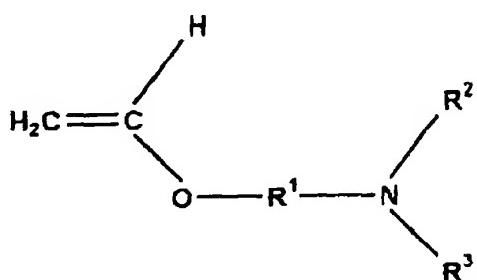
the copolymerization is carried out on a substrate.

7. An antimicrobial coating of a substrate,

wherein

vinyl ethers of the general formula

30



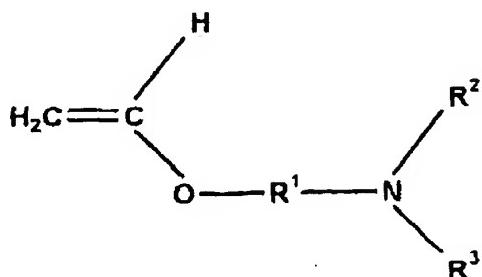
DEPARTMENT OF TRADE AND INDUSTRY
PATENT OFFICE
2000-241564-007

where R^1 is a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms, and

5 R^2 and R^3 are H or a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms, where R^2 and R^3 may be identical or different,

10 are copolymerized in graft polymerization of a substrate.

8. An antimicrobial coating as claimed in claim 7,
wherein
the substrate is activated prior to the graft
polymerization by UV radiation, plasma treatment,
corona treatment, flame treatment, ozonization,
electrical discharge or γ -radiation.
- 15
9. An antimicrobial coating as claimed in claim 7,
wherein
the substrate is activated, prior to the graft
polymerization, by UV radiation with a
photoinitiator.
- 20
- 25 10. A process for preparing antimicrobial copolymers,
which comprises
copolymersizing a vinyl ether of the general
formula



where R^1 is a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms,

R^2 is H, and

5 R^3 is H or a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms,

10 with at least one aliphatically unsaturated monomer.

11. The process as claimed in claim 10,
wherein

15 the vinyl ether used comprises 3-aminopropyl vinyl ether.

12. The process as claimed in claim 10 or 11,
wherein

20 the aliphatically unsaturated monomers are methacrylic acid compounds.

13. The process as claimed in claim 10 or 11,
wherein

25 the aliphatically unsaturated monomers are acrylic acid compounds.

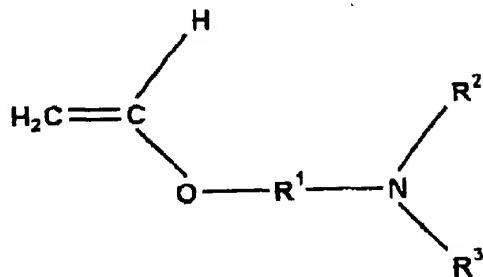
14. The process as claimed in claim 10 or 11,
wherein

30 the aliphatically unsaturated monomers used are methyl methacrylate, ethyl methacrylate, butyl methacrylate, tert-butyl methacrylate, methyl acrylate, ethyl acrylate, butyl acrylate, tert-butyl acrylate, tert-butylaminoethyl esters, 2-diethylaminoethyl methacrylate, 2-diethylaminoethyl vinyl ether, N-3-dimethylaminopropyl-methacrylamide, 3-methacryloylaminopropyltrimethylammonium chloride, 2-methacryloyloxyethyltrimethylammonium chloride or

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2-methacryloyloxyethyltrimethylammonium
methosulfate.

15. The process as claimed in any one of claims 10 to
5 14,
wherein
the copolymerization is carried out on a
substrate.
- 10 16. A process for preparing an antimicrobial coating
of a substrate,
which comprises
copolymers vinyl ethers of the general formula



- 15 where R¹ is a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms, and
20 R² and R³ are H or a branched or unbranched hydrocarbon radical having from 1 to 5 carbon atoms, where R² and R³ may be identical or different,
- 25 in graft polymerization of a substrate.

17. The process as claimed in claim 16,
wherein
30 the substrate is activated prior to the graft polymerization by UV radiation, plasma treatment, corona treatment, flame treatment, ozonization, electrical discharge or γ -radiation.

18. The process as claimed in claim 16,
wherein
the substrate is activated prior to the graft
5 polymerization by UV radiation with a
photoinitiator.
19. The use of the antimicrobial polymers as claimed
in any of claims 1 to 9 for producing products
10 with an antimicrobial coating of the polymer.
20. The use of the antimicrobial polymers as claimed
in any one of claims 1 to 9 for producing medical
items with an antimicrobial coating of the
15 polymer.
21. The use of the antimicrobial polymers as claimed
in any one of claims 1 to 9 for producing hygiene
items with an antimicrobial coating of the
20 polymer.
22. The use of the antimicrobial polymers as claimed
in any one of claims 1 to 9 in surface coatings,
protective paints or other coatings.